REMARKS/ARGUMENTS

Claims 1, 4-7, and 9-28 are pending in the present application.

The following remarks are believed to be fully responsive to the Office Action.

THE REJECTIONS UNDER 35 U.S.C. § 112, FIRST PARAGRAPH SHOULD BE WITHDRAWN

Claims 1, 4-7, and 9-28 are rejected under 35 U.S.C. 112, first paragraph, because the specification does not reasonably provide enablement.

In response, Applicants have amended claim 1 in order to expedite prosecution. Support for this amendment can be found on page 7 lines 5-10 of the specification. Specifically, the language added to claim 1 is "wherein, when Q is substituted with an electron donating substituent, Q also contains one or more electron withdrawing groups to ensure Q is electron deficient". Applicants respectfully submit that it is Q that needs to be electron deficient and that does not preclude Q having a substituent which isn't electron deficient. Applicants believe this amendment will overcome the objection made by the Examiner that nucleophilic displacement can occur at both sides of the starting compound (page 3-4 of the current Office Action).

In response to the lack of enablement objection, Applicants did a quick Google book search on "18F" and "iodonium" in the years 1990-2004. This search retrieved 22 hits which demonstrate that fluoridation of iodonium salts was common general knowledge at the

priority date of the present invention. Methods to obtain the starting iodonium salt compounds are also comprised within this body of art. The presently-claimed method is simply the method that was common general knowledge at the priority date but wherein the solvent for the fluoridation is water or water and a water-miscible solvent. Accordinlgy, a person skilled in the art would have no problem carrying out the claimed method over its whole scope without any undue burden (page 4, 5, 6 of the current Office Action).

The Examiner also continues to object that there is no teaching of how the method of the invention would work where there are reactive groups present (page 3, 5, 6 of the present Office Action). As we set out in our previous Response, it was common general knowledge at the priority date to use protecting groups to ensure the desired reaction proceeds (page 11 lines 2-4 of our specification refer to the common general knowledge).

The Examiner comments that the method lacks reproducibility and is unpredictable (page 5 of the current Office Action). Particularly now that claim 1 is further amended to ensure fluoridation of the Q side of the starting compound, a person skilled in the art would have a reasonable expectation that the claimed method would work over its entire scope. The experimental examples support this position as they relate to some different types of iodonium salts, all of which were successfully fluoridated using the method of the invention.

The Examiner also objects that the claims are "reach through" claims as they reach through for fluoridation of any or all iodonium salt (page 7 of the current Office Action). This is inaccurate, as as the claims are limited to iodonium salts of formula I or formula II.

Therefore, Applicants respectfully request that the rejections of the 35 U.S.C. 112, first paragraph, of claim 1, 4-7, and 9-28 be withdrawn.

THE REJECTIONS UNDER 35 U.S.C. § 103

SHOULD BE WITHDRAWN

Claims 1, 4-7, and 9-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Grushin et al. (Grushin). In response, Applicants submit that each of the rejections should be withdrawn for the reasons stated below.

Applicants first respectfully submit that the claimed method is a pretty radical departure from the common practice in the art. A person skilled in the art would automatically carry out a step of eliminating water from the reactants before carrying out the fluoridation. Evidence of this common general knowledge was provided by us in response to the previous Office Action dated January 6, 2009. There was a strong teaching in the art that all water had to be removed for successful fluoridation to take place. The examples in the current specification surprisingly demonstrate that the fluoridation of iodonium salts covered by claim 1 can proceed successfully in the presence of water.

Additionally, the Examiner has based a lot of argumentation around the teachings of Grushin, and even goes as far as to state that "Grushin clearly teaches that water can be used for such reactions" (page 10 of the current Office Action). As we set out previously, there is no teaching in Grushin to carry out fluoridation of an iodonium salt in a reaction solvent that is either water or water and a water-miscible solvent. The reactions in Grushin pointed to by the Examiner that are carried out in water (page 9 of the current Office Action) are not

fluoridation of iodonium salt. Grushin, therefore, does not provide any teaching that would pull the skilled person away from the well-established practice of eliminating water for carrying out fluoridation of an iodonium salt. Where Grushin does teach fluoridation of an iodonium salt it is in a diphasic solvent system, which is quite distinct from the solvent system of the presently claimed invention. Accordingly, Applicants respectfully submit that the teachings in Grushin are quite different from the present invention.

Further, the Examiner continues to maintain that there is no comparative data to show unexpected superior results (page 11 of the current Office Action). Applicants respectfully disagree. The results presented in examples 11 and 12 of the current specification show firstly that the fluoridation reaction proceeds in the presence of water. The removal of a step from a method is in itself is an advantage as it shortens the synthesis time (particularly an advantage for 18F) and makes the method simplier. Furthermore, the examples show that the claimed method also improved radiochemical yield and radiochemical purity.

All the inventive step objections comprise Grushin as a starting point, and can therefore be submitted to be overcome on the basis of the above argumentation.

In view of the foregoing, it is respectfully submitted that 35 U.S.C. 103(a) rejections of claims 1, 4-7, and 9-15 over Grushin be withdrawn.

CONCLUSION

In view of the amendments and remarks herein, Applicants believe that each ground for rejection or objection made in the instant application has been successfully overcome or obviated, and that all the pending claims are in condition for allowance. Withdrawal of the Examiner's rejections and objections, and allowance of the current application are respectfully requested.

The Examiner is invited to telephone the undersigned in order to resolve any issues that might arise and to promote the efficient examination of the current application.

Respectfully submitted,

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